



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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P#5

Applicant(s): Hultgren et al

Serial No: 10/027,350

Art Unit: Unassigned

Filed: 28 December 2001

Examiner: Unassigned

TITLE: Therapeutic Compounds Structurally Linked to Bacterial Polypeptides

Docket No.: 469201-582

23 June 2003

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. §1.56(a), Applicant(s) hereby cite(s) the enclosed documents listed on the attached copy of Form PTO-1449 which are believed to be material to the patentability of the above-identified application. In addition, a supplemental disclosure statement has been filed citing related co-pending applications.

This Information Disclosure Statement is filed in accordance with the paragraph of 37 CFR §1.97 indicated below:

X §1.97(b) This Information Disclosure Statement is filed:

- (1) Within three months of the filing date of a national application; OR
- (2) Within three months of the date of entry of the national stage of an international application; OR
- (3) Before the mailing of a first Office Action on the merits.
No fee or statement is required.

___§1.97(c) This Information Disclosure Statement is filed after the period specified in paragraph (b) above, but before the mailing date of either:

- (1) A Final Action or under 37 CFR §1.113; OR
- (2) A Notice of Allowance under 37 CFR §1.311; AND

is accompanied by either: (check one)

_____ The statement as specified in 37 CFR §1.97(e) set out below; OR

_____ The fee of \$ 180.00 under 37 CFR §1.17(p).

___§1.97(d) This Information Disclosure Statement is filed after the mailing date of either:

- (1) a Final Action or under 37 CFR §1.113; OR
- (2) A Notice of Allowance under 37 CFR §1.311;

BUT filed on or before payment of the Issue Fee; AND
is accompanied by:

- (1) The statement as specified in 37 CFR §1.97(e) as set forth below; AND
- (2) Petition is hereby made under 37 CFR §1.97(d) for consideration of this Information Disclosure Statement; AND,
- (3) The petition fee of \$130.00 set out in 37 CFR §1.17(i).

___§1.97(e) The undersigned Attorney hereby states that:

___ each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing date of this Information Disclosure Statement;

or

___ no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, or to the knowledge of the undersigned Attorney after making reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing date of the Information Disclosure Statement.

The Commissioner is authorized to charge payment of any fees associated with this communication or credit any overpayment to Deposit Account No. 03-0678.

Serial No: 10/027,350
Filed: 28 December 2001

FIRST CLASS CERTIFICATE

I hereby certify that this
correspondence is being deposited
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 6/23/03
Alan J. Grant, Esq. Date

Respectfully submitted,



Alan J. Grant, Esq.
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Form PTO-1449

INFORMATION DISCLOSURE STATEMENT

Atty. Docket:
469201-582Serial No.:
10/027,350

Applicant: Scott J. Hultgren

Filing Date: 28 December

Group:

U.S. PATENT DOCUMENTS

| Examiner Initial | Document Number | Date | Name | Class | Sub-Class | Filing Date |
|------------------|-----------------|-----------|------------------|------------------|-----------|-------------|
| | A1 | 6,500,434 | 31 December 2002 | Langermann et al | | |
| | B1 | | | | | |
| | C1 | | | | | |

FOREIGN PATENT DOCUMENTS

| Examiner Initial | Document Number | Date | Country | Class | Sub-Class | Translation |
|------------------|-----------------|-------------|-----------------|-------|-----------|---|
| | D1 | WO 95/20657 | 3 August 1995 | PCT | | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| | E1 | WO 01/04148 | 18 January 2001 | PCT | | <input type="checkbox"/> Yes <input type="checkbox"/> No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

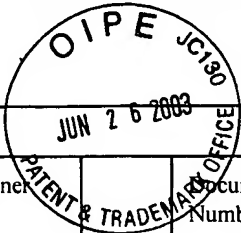
| | |
|----|---|
| F1 | Sauer, et al., "Structural Basis of Chaperone Function and Pilus Biogenesis," Science, Vol. 285, pp. 1058-1061 (August 1999). |
| G1 | Barnhart, et al., "PapD-like chaperones provide the missing information for folding of pilin proteins," PNAS, Volume 97, No. 14 (July 5, 2000). |
| H1 | Choudhury, et al., "X-ray Structure of the FimC-FimH Chaperone-Adhesin Complex from Uropathogenic Escherichia coli," Science, Vol. 285, pp. 1061-1066 (August 13, 1999). |
| I1 | Langermann, et al., "Prevention of Mucosal Escherichia coli Infection by FimH-Adhesin-Based Systemic Vaccination," Science, Vol. 276, pp. 607-611 (April 25, 1997). |
| J1 | Jones, et al., "FimC is a periplasmic PapD-like chaperone that directs assembly of type 1 pili in bacteria," Proc. Nat'l. Acad. Sci. USA, Vol. 90, pp. 8397-8401 (September 1993). |
| K1 | Hung, et al., "Molecular basis of two subfamilies of immunoglobulin-like chaperones," EMBO Journal, Volume 15, No. 15, pp. 3792-3805 (1996). |
| L1 | Hultgren, et al., "The PapG adhesin of uropathogenic <i>Escherichia coli</i> contains separate regions for receptor binding and for the incorporation into the pilus," Proc. Nat'l. Acad. Sci. USA, Volume 86, pp. 4357-4361 (June 1989). |
| M1 | Knight, et al., "Crystallization and preliminary X-ray diffraction studies of the FimC-FimH chaperone-adhesin complex from <i>Escherichia coli</i> ," Acta Crystallographica, Section D, pgs. 207-210 (1997). |
| N1 | Saulino, et al., "Ramifications of kinetic partitioning on usher-mediated pilus biogenesis," EMBO Journal, Volume 17, No. 8, pp. 2177-2185 (1998). |
| O1 | Bereneice McClentton Madison, "Structural, Antigenic and Functional Analysis of FIMH Protein in Escherichia Coli and Klebsiella Pneumoniae Type 1 Fimbriae," Univ. of Tennessee Cntr. for the Health Sciences, Vol. 52/06-B, page 2893, 159 pages (1990). |

Examiner:

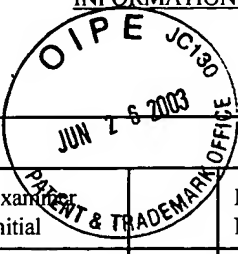
Date Considered:

EXAMINER:

Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



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|---|-----------------|---|---------|-------------------------------|-----------|---|--|
| Form PTO-1449 | | | | Atty. Docket: 469201-582 | | Serial No.: 10/027,350 | |
| INFORMATION DISCLOSURE STATEMENT  | | | | Applicant: Scott J. Hultgren | | | |
| | | | | Filing Date: 28 December 2001 | | Group: | |
| U.S. PATENT DOCUMENTS | | | | | | | |
| Examiner Initial | Document Number | Date | Name | Class | Sub-Class | Filing Date | |
| | P1 | | | | | | |
| FOREIGN PATENT DOCUMENTS | | | | | | | |
| Examiner Initial | Document Number | Date | Country | Class | Sub-Class | Translation | |
| | Q1 | | | | | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | | | | | |
| | R1 | "Abstracts of the 89th Annual Meeting of the American Society for Microbiology," New Orleans, La, May 14-18, 1989 | | | | | |
| | S1 | Tewari, et al., "Neutrophil Activation by Nascent FimH Subunits of Type 1 Fimbriae Purified from the Periplasm of <i>Escherichia coli</i> ," Journal of Biological Chemistry, Vol. 268, No. 4, pp. 3009-3015 (1993). | | | | | |
| | T1 | Palaszynski et al, in <u>Modulation of the Immune Response to Vaccine Antigens</u> , Vol. 92, pp 117-122 (1998) | | | | | |
| | U1 | Thankavel, et al., "Localization of a Domain in the FimH Adhesin of <i>Escherichia coli</i> Type 1 Fimbriae Capable of Receptor Recognition and use of a Domain-specific Antibody to Confer Protection against Experimental Urinary Tract Infection," American Society for Clinical Investigation, Vol. 100, No. 5, pp. 1123-1136 (September 1997). | | | | | |
| | V1 | Abraham, et al., "Conservation of the D-Mannose-adhesion protein among type 1 fimbriated members of the family Enterobacteriaceae," Nature, Vol. 336 (December 1988). | | | | | |
| | W1 | Abraham, et al., "Protection Against <i>Escherichia coli</i> -Induced Urinary Tract Infections with Hybridoma Antibodies Directed Against Type 1 Fimbriae or Complementary D-Mannose Receptors, Infection and Immunity, Vol. 48, No.3, pgs. 625-628 (June 1985). | | | | | |
| | X1 | Hanley, et al, "Molecular Basis of <i>Escherichia coli</i> Colonization of the Upper Urinary Tract in BALB/c Mice," Amer. Society for Clinical Investigation, Inc., Vol. 75, pp. 347-360 (February 1985). | | | | | |
| | Y1 | Langermann et al., J. Infectious Dis., Vol. 181, pp. 774-778 (2000) | | | | | |
| | Z1 | Langermann et al., J. Infectious Dis., Vol. 183, Suppl., pp. S84-S86 (2001) | | | | | |
| | AA | Dodson et al, PNAS (USA), Vol. 90, pp. 3670-3674 (1993) | | | | | |
| | BB | | | | | | |
| | CC | | | | | | |
| Examiner: | | | | Date Considered: | | | |
| EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant. | | | | | | | |